

*Occultations observed at Harrow during the Total Eclipse of the Moon, 1895 March 10. By Lieut.-Colonel G. L. Tupman.*

		Dis.	Harrow Sidereal	Greenwich
			Time.	Mean Time.
83 Leonis			13 29 36.45	14 16 57.24
"		Reap.	14 24 36.39	15 11 48.18
P. XI. 71		Reap.	14 25 39.97	15 12 51.58
τ Leonis		Dis.	14 8 32.00	14 55 46.42
"		Reap.*	14 56 30.47	15 43 37.03
LL 21847		Dis.	14 47 41.23	15 34 49.23
LL 21819		Dis.	14 8 47.04	14 56 1.42
"		Reap.	15 0 3.14	15 47 9.12
LL 21833		Dis.	14 25 56.71	15 13 8.28

Place of observation (about 188 feet south of the transit circle) in latitude  $51^{\circ} 34' 45''$ , longitude  $0^{\circ} 1^m 19s.86$  W. Height above sea 220 feet. The clock-correction was determined March 10 and 11.

*Total Eclipse of the Moon, 1895 March 10. By G. J. Newbegin.*

Six photographs of the lunar eclipse were taken by me at Thorpe Observatory in the focus of 9-inch Cooke equatorial: the first at  $14^h 6^m$  after immersion in Earth's shadow, which had by this time well advanced. The second was taken at  $14^h 30^m$ , showing the shadow so far advanced as to cover quite two-thirds of the Moon. My third plate was exposed at  $14^h 55^m$ , three minutes after commencement of total phase, the Moon still showing considerable brightness in the region last immersed, and  $\tau$  Leonis not yet occulted. Being in doubt as to what exposure to give, I tripled it, hopeful of securing some trace of the Moon, and also the star so near occultation. Hope is one thing, reality another; the plate came out a complete blank, not the least trace of anything being visible. At  $15^h 30^m$  I tried once more, the Moon having now reached very nearly central totality. This time I increased the former exposure twenty times, again wondering what the result might be. Result—a blank plate, with somewhat more light in it. I then decided not to expose until the emergence of the Moon from Earth's shadow, and meanwhile made only visual notes, from which I now quote:— $15^h 30^m$ , S.E. of Moon quite copper-coloured, N.W. silver-edged.

\* Reap. of  $\tau$  Leonis was not instantaneous.

15<sup>h</sup> 50<sup>m</sup>, N. silver-edged. 16<sup>h</sup> 10<sup>m</sup>, from N. to S.E. silver-edged, which region continued brightening until end of total phase at 16<sup>h</sup> 26<sup>m</sup> 6<sup>s</sup>. It would be difficult to say at what particular second one could be certain the Moon had emerged, but I feel certain the time named was extremely near. At 16<sup>h</sup> 30<sup>m</sup>, or about 3<sup>1</sup>/<sub>4</sub><sup>m</sup> after emergence, I again exposed a plate, and secured a very faint segment of the reappearing Moon. My last plate was exposed at 17<sup>h</sup>, dawn having commenced. By this time three-fifths of the Moon had reappeared, and the eclipse of 1895 March 10 was practically over.

Times of Exposure.			Times of Exposure.		
h	s	2-inch aperture	h	s	9-inch aperture
14	20		15.30	60	
14.30	20	„ „ „	16.30	30	2-inch „
14.55	60	„ „ „	17	20	„ „

*Solar Eclipse, 1895 March 25.* By G. J. Newbegin.

On this occasion so many clouds were passing from the N.W. that I can only say my first observation of the eclipse was at 22<sup>h</sup> 4<sup>m</sup> G.M.T., when it had already begun, but certainly only just begun. At 22<sup>h</sup> 13<sup>m</sup> I took this photograph: it was then or never as far as sky was concerned. I estimate it to have been then at its maximum. At 22<sup>h</sup> 24<sup>m</sup> I had one more peep, when, to my eye, the eclipse was over.

*Partial Eclipse of the Sun, 1895 March 25.* By Professor Arthur A. Rambaut, M.A., Sc.D.

At Dunsink on the morning of the eclipse the sky was flecked with clouds which occasionally obscured the Sun. We missed the first contact, but the time of egress was well determined, the definition being very good at the time.

This phase occurred at 10<sup>h</sup> 42<sup>m</sup> 42<sup>s</sup>.8 G.M.T.

*Dunsink: 1895 April 10.*